

What is claimed is:

1. A document processing apparatus which displays
a document image using image data of a document
5 having one or more entry columns, comprising:
 an image data obtaining unit obtaining image
data of a document;
 an area discrimination unit discriminating an
area of a document image indicated by the image
10 data obtained by said image data obtaining unit,
and discriminating at least between two types of
areas, that is, a useful information area having
useful information for document processing and an
useless information area having no useful
15 information area;
 a data processing unit increasing a ratio of
the useful information area to the entire area by
processing at least one of a first partial image
data which is image data of a portion for display
20 of the useful information area and a second partial
image data which is image data of a portion for
display of the useless information area based on
the discrimination by said area discrimination
unit; and
25 a display control unit displaying a document

image on a display device using the image data obtained by said data processing unit processing at least one of the first and second partial image data.

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2. The apparatus according to claim 1, wherein said area discrimination unit considers at least one direction in counting a number of pixels assumed to be used in displaying information about a document image represented by the image data, and
10 discriminates the useful information area from the useless information area based on a counting result.

3. The apparatus according to claim 2, wherein

15 when said area discrimination unit discriminates the useful information area from the useless information area based on whether or not the number of pixels counted by considering one direction is equal to or smaller than a
20 predetermined value, said data processing unit increases a ratio of the useful information area to the entire area by performing on at least the second partial image data a process of thinning lines having the number of pixels equal to or
25 smaller than a predetermined value in the lines in

the one direction.

4. The apparatus according to claim 1, wherein
said data processing unit performs a process
5 on at least one of the first and second partial
image data so that a ratio of the useful
information area to the entire area can be
increased by using different display magnifications
of the useful information area and the useless
10 information area.

5. A method for displaying a document image using
image data of a document having one or more entry
columns, comprising:
15 discriminating an area of a document image
indicated by the image data of the document, and
discriminating at least between two types of areas,
that is, a useful information area having useful
information for document processing and an useless
20 information area having no useful information area;

increasing a ratio of the useful information
area to the entire area by processing at least one
of a first partial image data which is image data
of a portion for display of the useful information
25 area and a second partial image data which is image

data of a portion for display of the useless information area based on the discrimination; and

displaying the document image on a display device using the image data obtained by processing
5 at least one of the first and second partial image data.

6. A document processing apparatus which processes a document having one or more entry
10 columns, comprising:

image data obtaining unit obtaining image data of a document;

area discrimination unit discriminating an area of a document image indicated by the image
15 data obtained by said image data obtaining means, and discriminating at least between two types of areas, that is, a useful information area having useful information for document processing and an
useless information area having no useful
20 information area;

data processing unit increasing a ratio of the useful information area to the entire area by processing at least one of a first partial image data which is image data of a portion for display
25 of the useful information area and a second partial

image data which is image data of a portion for display of the useless information area based on the discrimination by said area discrimination means;

5 display control unit displaying a document image on a display device using the image data obtained by said data processing means processing at least one of the first and second partial image data;

10 document recognition unit recognizing the entry column entered on the document image displayed by said display control means; and

 correction unit correcting presence/absence of an entry in the entry column recognized by said
15 document recognition means at an instruction of a user.

7. A storage medium storing a program used to direct a document processing apparatus which
20 displays a document image using image data of a document having one or more entry columns, comprising the functions of:

 obtaining image data of the document;

 discriminating an area of a document image
25 indicated by the image data obtained by said

obtaining function, and discriminating at least between two types of areas, that is, a useful information area having useful information for document processing and an useless information area
5 having no useful information area;

increasing a ratio of the useful information area to the entire area by processing at least one of a first partial image data which is image data of a portion for display of the useful information
10 area and a second partial image data which is image data of a portion for display of the useless information area based on the discrimination by said discriminating function; and

displaying the document image on a display
15 device using the image data obtained by processing at least one of the first and second partial image data by said increasing function.

8. A storage medium storing a program used to
20 direct a document processing apparatus which processes a document having one or more entry columns, comprising the functions of:

obtaining image data of the document;
discriminating an area of a document image
25 indicated by the image data obtained by said

obtaining function, and discriminating at least between two types of areas, that is, a useful information area having useful information for document processing and an useless information area
5 having no useful information area;

increasing a ratio of the useful information area to the entire area by processing at least one of a first partial image data which is image data of a portion for display of the useful information
10 area and a second partial image data which is image data of a portion for display of the useless information area based on the discrimination by said discriminating function;

displaying the document image on a display
15 device using the image data obtained by processing at least one of the first and second partial image data by said increasing function;

recognizing the entry column entered on the document image displayed by said display control
20 means; and

correcting presence/absence of an entry in the entry column recognized by said document recognition means at an instruction of a user.

25 9. A document processing apparatus which displays

a document image using image data of a document having one or more entry columns, comprising:

an image data obtaining means for obtaining image data of a document;

5 an area discrimination means for discriminating an area of a document image indicated by the image data obtained by said image data obtaining unit, and discriminating at least between two types of areas, that is, a useful
10 information area having useful information for document processing and an useless information area having no useful information area;

a data processing means for increasing a ratio of the useful information area to the entire area
15 by processing at least one of a first partial image data which is image data of a portion for display of the useful information area and a second partial image data which is image data of a portion for display of the useless information area based on
20 the discrimination by said area discrimination unit; and

a display control means for displaying a document image on a display device using the image data obtained by said data processing unit
25 processing at least one of the first and second

partial image data.

10. A document processing apparatus which processes a document having one or more entry
5 columns, comprising:

image data obtaining means for obtaining image data of a document;

area discrimination means for discriminating an area of a document image indicated by the image
10 data obtained by said image data obtaining means, and discriminating at least between two types of areas, that is, a useful information area having useful information for document processing and an
useless information area having no useful
15 information area;

data processing means for increasing a ratio of the useful information area to the entire area by processing at least one of a first partial image data which is image data of a portion for display
20 of the useful information area and a second partial image data which is image data of a portion for display of the useless information area based on the discrimination by said area discrimination means;

25 display control means for displaying a

document image on a display device using the image data obtained by said data processing means processing at least one of the first and second partial image data;

5 document recognition means for recognizing the entry column entered on the document image displayed by said display control means; and

 correction means for correcting presence/absence of an entry in the entry column

10 recognized by said document recognition means at an instruction of a user..